EXCELLENT CLINICAL TEACHING:
DOES IT REALLY MATTER?

Chipper Griffith, MD
Professor of Medicine
University of Kentucky

Selected References

OUTCOMES OF TEACHING

- Students who worked with the on-the-average higher rated surgery attendings did better in NBME surgery exams; those who worked with lower-rated surgical faculty did worse on data-gathering OSCE stations.


- Students working with “best” (top 20%) attendings had greater increases in pre-to-post clerkship exam scores


--- students who worked with “worst” (bottom 20%) residents perform worse on NBME Subject Exam in Medicine and USMLE 2; “best” intern exposure associated with better practical exam scores, “worst” intern exposure with lower score. “Best” attending exposure associated with higher NBME Subject Exam Scores and USMLE II.


- For “excellent” medical students (those in the top 30% of USMLE I Scores), those who worked in their medicine clerkship with one highly rated attending or resident teacher were much more likely to select a medicine residency versus students without such an exposure (9/29 chose IM with exposure, 0/23 without exposure).

- Even stronger findings in the six year study: Controlling for prior academic achievement with USMLE I Scores, students who worked with the “best” clinical teachers scored significantly higher on their post-clerkship NBME exam (491 vs. 463: effect size 0.3 S.D.) and on USMLE 2 (207 vs. 199, effect size 0.4 S.D.)


- replicates our findings at USUHS
- residents had the most effect on student improvement.


Answer: yes; replicates our findings at Michigan

**EVALUATING TEACHING**


- student-identified role models at UNC, U Wash were more junior, rural, private practice; enthusiastic, loved what doing 86% feel they influenced career decisions


- good/average teachers had stable ratings over 10 years
- Poor teachers improved
- Decreased rating post academic promotion


- emphasizes importance of substantial planning before rounds, and “content-specific curriculum scripts” for instruction; and use of Improvisation and interactive thinking and decision making

Excellent descriptive article of observed behaviors of excellent clinical teachers: they focus on “case-based” learning scripts (i.e. from their experiences of learner situations. They hear a presentation, and know which question to ask on a certain patient-type; therefore, content-expertise not enough, need to have exposure to students of a certain level and certain patient types).


-the seminal review article on this topic.


-Compared Student reports of behaviors of “best” versus “worst” teachers; best were rated high because of good instructional skills, worst because of personality defects


- After mid-month feedback (inpatient setting;? therefore, how anonymous?), poor baseline teachers deteriorated with feedback, vs. good teachers improved (in interaction-analysis)
- One of the only RCTs in this area


-replicates in pediatrics that excellent teachers rely on tried-and-true (from Knowledge of learners) teaching scripts, that content expertise is not enough.


-overall teaching item equivalent to 7 constructs of SFDP validity scale form; 5 evaluations to achieve reliability of >.80.


-students value role model behaviors the most; residents value effective
supervisor skills the most


- Student interest in a discipline doesn’t affect their evaluation of teachers


- Description of distinguished teachers failure in 3 domains: planning (misjudging learners, lack of preparation, presenting too much content, lack of purpose, audiovisual difficulty); teaching (inflexibility of single teacher method); reflection (selecting wrong teaching strategy, incorrectly implementing sound strategy)


- 48 distinguished instructors reflect on successes (i.e. involving learners, continue innovating, creative positive atmosphere, preparing adequately, engaging learners, limiting content, reflecting on action).


- Faculty rated higher in setting where organizational climate better and job related stress lower

- Emphasizes importance of setting influencing ratings


- Role modeling and enthusiasm were central features of high-rated teachers


- Good succinct review discussing challenges of evaluating quality of educational process, both teacher and courses

-One overall effective teaching item is as reliable and valid as 26 item instruments


-Predictors of excellent role models were those who spend >25% time teaching, >25 hours/week teaching and conducting rounds when an attending on the wards, stressing doctor-patient relationship in teaching, teaching psychosocial aspects of medicine, and had been a chief resident

* see illuminating letter to editor NEJM 1998; 340: 1598 of common criticism to studying teaching, that’s it’s just “common-sense”


-Good critical review of teaching evaluation instruments, pointing out areas well-studied (reliability) and areas less well-studied (validity)


-Students a Pitt and West Virginia value intern teaching, especially in the realms of learning climate and understanding/retention


-provocative finding that one student evaluation of a faculty’s teaching may be “enough” in terms of reliability if judging performance at or below a cutoff score; otherwise, need about 4 evaluations on 2 occasions


-four preceptor behaviors significantly associated with overall teaching effectiveness in the outpatient arena: inspired confidence in medical skills, explained decisions, treated students with respect, and provided a role model.

- resident behaviors associated with overall teaching effectiveness included: role model (explained most of the variance), being available to students, inspiring confidence in clinical skills, performing effective patient education, and showing enthusiasm for teaching. Attending behaviors were: enthusiasm for teaching, inspiring confidence in clinical skills, providing feedback, and encouraging students to accept responsibility. Interestingly, looking at the subset of teaching attendings who were also the attending of record for the patient, role modeling was the most important attribute, similar to the residents.


- over the academic year, students become less critical and residents more critical in their evaluations of faculty.

**FACULTY DEVELOPMENT**


- Posits research questions ripe for study in many educational areas
- faculty development questions includes what is the most efficient and effective faculty development method for teachers in the ambulatory setting? How does faculty development improve the learning environment? Etc.


- Seminal report on the Stanford Faculty Development Program
- Faculty self-assessment improved post-course
- Housestaff/student ratings reported to increase post-course; actually was only on some items, unclear how many residents/students per faculty, ratings high pre-and post, and measurement of teaching vague and unclear in text.


- Excellent review, especially emphasizing theoretical basis of faculty Development

at Long Beach Memorial medical Center, 62 second year residents randomized to receive a 13 hour teaching skills curriculum had significantly higher teaching evaluations from students, compared to their own historic ratings and to a control group of residents.


-describes the effectiveness of an intense (3.5 hours per week) longitudinal (9 months) faculty development program at Johns Hopkins, with participants rating their teaching skills and confidence much higher after the program, with these feelings sustained over the years (JGIM 2005; 20: 721)


- a good recent critical review of the literature.


-39% have ongoing faculty development activities, usually half-day workshops; 26% have no programs whatsoever


-Formal instruction in teaching skills occurs in 88% of med-peds programs, 80% peds, 65% IM, 62% psychiatry, 52% family medicine, 38% ob-gyn, 31% in surgery. Note however that surgery programs that do occur are significantly more in-depth and time-intensive than other specialties.

OTHER


-teaching reimbursed at $16 per hour, excluding fringe benefits.

-describes an elaborate Teaching RVU system which for many reasons (good and bad) we didn’t adapt here


-at Washington, attendings reported significantly less teaching time after the HCFA guidelines implemented but their teaching ratings remained high


-at University of Chicago, residents perceived the greatest impediment to teaching was attendings documenting rounds.


-at Harvard, no difference in time with residents by students after work hour limitations, and IMPROVEMENTS noted in residents teaching and availability


-at Penn, no difference noted by students in student activities, including educational time.